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1. (Three Times Amended) A method for separating nucleic acid from a test sample comprising:

- a) contacting a test sample with a metal oxide support material and a binding buffer such that the nucleic acid bonds with the metal oxide support material, wherein the binding buffer comprises a chaotropic agent and a detergent and the flashpoint of the binding buffer is greater than 130 degrees fahrenheit;
- b) separating the complexes from the test sample; and
- c) eluting the nucleic acid from the metal oxide support material, thereby separating the nucleic acid from the test sample.

C<sup>2</sup>

11. (Three Times Amended) A kit for separating nucleic acid from a test sample comprising:

- a) metal oxide particles comprising metal oxide, wherein when the metal oxide particles are contacted with nucleic acids, the nucleic acid bonds with the metal oxide;
- b) a binding buffer comprising
  - (i) a chaotropic reagent, and
  - (ii) a detergent,wherein the binding buffer has a flashpoint of the binding is greater than 130 degrees fahrenheit; and
- c) an elution buffer comprising water.